BatLab Basic Project Kit – Servo Motor

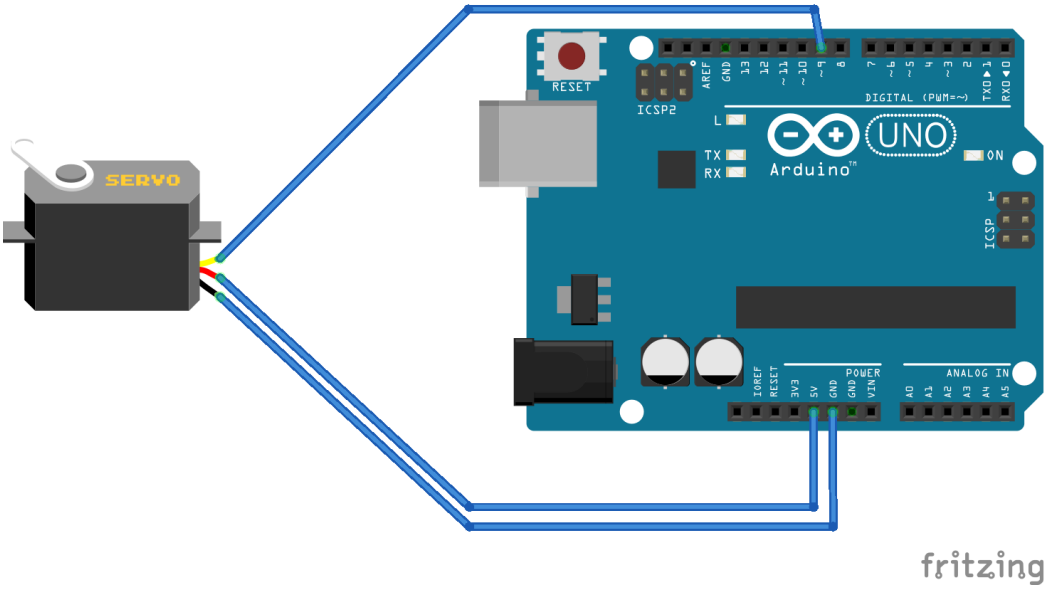
HOW IT WORKS

Servo motors are useful when you need a part to turn in precise increments. The servo motor in this kit rotates through 180°, or half a full circle. It has three leads. The red lead goes to a 5 volt power supply, the brown lead goes to ground, and oranges goes to a control signal provided by the Arduino.

PARTS

- Arduino Uno
- Servo Motor
- Breadboard & jumper wires

CIRCUIT



CODE

```
/* Sweep
 by BARRAGAN <http://barraganstudio.com>
 This example code is in the public domain.

 modified 8 Nov 2013
 by Scott Fitzgerald
 http://www.arduino.cc/en/Tutorial/Sweep

This program uses a library called "Servo" but because it is automatically
included with the Arduino IDE download, you don't need to download and
install it - it's already there.

*/

#include <Servo.h> // Include the Servo library

Servo myservo;   // create servo object to control a servo
                       // twelve servo objects can be created on most
                       // boards

int pos = 0;    // variable to store the servo position

void setup()
{
  myservo.attach(9);  // attaches the servo on pin 9 to the servo object
}

void loop()
{
  for(pos = 0; pos <= 180; pos += 1) // goes from 0 degrees to 180 degrees
  {                                  // in steps of 1 degree
    myservo.write(pos);              // tell servo to go to position in
                                     // variable 'pos'
    delay(15);                       // waits 15ms for the servo to reach
                                     // the position
  }
  for(pos = 180; pos>=0; pos-=1)     // goes from 180 degrees to 0 degrees
  {
    myservo.write(pos);              // tell servo to go to position in
                                     // variable 'pos'
    delay(15);                       // waits 15ms for the servo to reach
                                     // the position
  }
}
```